



SAFETY DATA SHEET

1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY

Catalogue No. : A 15029
Product Name : ALUMINIUM CHLORIDE ANHYDROUS

Manufacturer/supplier identification

Company : NICE Chemicals (P) Ltd., Cochin, India
Tel - 0484 2800212, 2802755

Contact for information : Tel. No.- 0484 2802536 Fax : 0484 2802483
Emergency Telephone No. : 0484 2801583 Telefax No. : 0484 2802483

2. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Hydrochloric Acid Aluminium Salt Anhydrous

CAS-No : 7446-70-028983-56-4 Ec-Index No. : 013-003-00-7
Molar Mass : 133.34 EC-No. : 231-208-1
Molecular formula : AlCl_3

3. HAZARDS INDEX : Causes burns.

4. FIRST AID MEASURES

After inhalation : fresh air. Summon doctor.

After skin contact : wash off with plenty of water. Dab with polyethylene glycol 400. Immediately remove contaminated clothing.

After eye contact : rinse out with plenty of water for at least 10 minutes with the eyelid held wide open. Immediately summon eye specialist.

After swallowing: make victim drink plenty of water, (if necessary several litres), avoid vomiting, (risk of perforation!). Do not attempt to neutralize. Immediately summon doctor.



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5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : In adaption to materials stored in the immediate neighbourhood.

Extinguishing media not to be used : Caution in contact with water product releases : hydrochloric acid

Special risks : Development of hazardous combustion gases or vapours possible in the event of fire.

The following may develop in event of fire : hydrochloric acid, chlorine.

Special protective equipment for fire fighting : Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

Other information: Non-combustible. Contain escaping vapour with water.

Prevent fire-fighting water from entering surface water or groundwater.

6. ACCIDENTAL RELEASE MEASURES

Person - related precautionary measures : Avoid generation of dusts; do not inhale dusts. Avoid substance contact.

Procedures for cleaning/absorption: Carefully take up dry. Forward for disposal. Clean up affected area. Avoid generation of dusts.

Environmental-protection measures : Do not allow to enter sewerage system.

7. HANDLING AND STORAGE

Handling - No further requirements.

Storage - Tightly closed. Dry. Protected from air.

Storage temperature : no requirements.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Respiratory protection : required when dusts are generated.

Eye Protection : required



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Hand Protection : required
Other protective equipment : Acid resistant protective clothing.

Industrial hygiene: Immediately change contaminated clothing. Apply skin-protective barrier cream. Wash hands and face after working with substance.
Avoid generation of dusts.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: powder
Colour	: yellow
Odour	: pungent
pH value at 100gm/lt.H ₂ O (200° C)	: Near 5.0
Melting temperature	: 1800° C
Boiling temperature	: 1800° C (sublimed)
Ignition temperature	: Not available
Flash Point	: Not available
Explosion limit lower	: Not available
upper	: Not available
Vapour pressure (300° C)	: 1 hPa
Relative vapour density	: Not available
Density (2000° C)	: 2.44 gm/cm ³
Bulk density	: ~1200 Kg/m ³
Solubility in Water (200° C)	: 450 gm/lt. (decomposition)
Ether (200° C)	: Soluble
Ethanol (200° C)	: Soluble

10. STABILITY AND REACTIVITY

Conditions to be avoided : Strong heating.
Substances to be avoided : water, alkenes, alcohols, alkali metals, alkaline earth metals, ethylene oxide, halogen oxides, oxidizing agent, organic nitro compounds, phenols, bases.



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Hazardous decomposition products : In the event of fire :
hydrochloric acid, chlorine
Further information : sensitive to moisture.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity : LD₅₀ (oral, rat) : 3450 mg/Kg :

Further toxicological information :

After inhalation of dust : mucosal irritations, coughing, dyspnoea.

After skin contact : Burns.

After eye contact : Burns.

After swallowing : Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract. Nausea with vomiting.

Other notes : Only very slightly absorbable via the gastrointestinal tract.

No sensitizing effect.

Further data : The product should be handled with care usual when dealing with chemicals.

12. ECOLOGICAL INFORMATION

Behavior in environmental compartments : Evaluation number (FRG) (fish) : 4.5;

Evaluation number (FRG)(bacteria): 4.8; Evaluation number(FRG)(mammal):1;

Ecotoxic effects : Biological effects : Toxic for aquatic organisms. Harmful effect due to pH shift.

Forms corrosive mixture with water even if diluted. Biologically not eliminable.

Fish toxicity : *Gambusia affinis* LC₅₀ : 27.1 mg/l/96 h;

Daphnia toxicity : *Daphnia magna* LC₅₀ : 27.3 mg/l/48h;

Algal toxicity : *Scenedesmus quadricauda* EC₅ : 1.75 mg/l;

Bacterial toxicity : *Pseudomonas fluorescens* EC₅:4.5mg/l;

Further ecologic data : The following applies to aluminium compounds in general;
for acidic aluminium compounds : Biological effects : Toxic for water organisms.



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Fish : Toxic as from 0.55 mg/l.; in very soft water toxic as from 0.1 mg/l.; crustaceans :D. magna toxic as from 136 mg/l.; algac : Sc. quadricauda toxic as from 1.5 mg/l. (all values referring in dissolved Al). In the case of alkaline aluminium compounds, flocculation may cause mechanical damage in aquatic organisms

The following may develop after reaction of the product with water; HCl. The following applies to HCl in general : Harmful effect on aquatic organisms.

Harmful effect due to pH shift. Biological effects : hydrochloric acid (including such due to reaction) : lethal for fish as from 25 mg/l.; Leuciscus idus LC₅₀ : 862 mg/l. (IN- solution). Harmful effects begin at; plants 6mg/l. Does not cause biological oxygen deficit.

Do not allow to enter waters, waste water, or soil !.

13. DISPOSAL METHOD

There are no uniform EC Regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding laws & regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste.

Disposal in compliance with official regulations. Handle contaminated packaging in the same way as the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled.

14. TRANSPORT INFORMATION

Transport over land

ADR/RID and GGVS/GGVE : GGVS/GGVE class : 8 Number and letter : 11b

ADR/RID class : 8 Number and letter : 11b

Name of material : ALUMINIUM CHLORIDE



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Sea Transport IMDG : IMDG class : 3334 UN No. : 1726 Packing group : II

Ems : 6-06 MFAG : 700

Correct Technical Name : ALUMINIUM CHLORIDE

Air Transport ICAO-TI

and IATA-DGR : ICAO/IATA class : 8 UN No. : 1726

Packaging group : II

Correct Technical Name : ALUMINIUM CHLORIDE

15. REGULATORY INFORMATION

Labelling according to EC Directives

Symbol : C Corrosive

R-phrases : H Causes burns

S-phrases : 7/8-28-45 Keep container tightly closed and dry. After contact with skin, wash immediately with plenty of water. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

EC.No. : 231-208-1 EC label

Water pollution class : 1 (slightly polluting substance).

16. OTHER INFORMATION

Reason for alteration

Addition in the chapter ecology.

Addition in the chapter toxicology.

The information contained herein is based on the present state of our knowledge.

It characterises the product with regard to the appropriate safety precautions.

It does not represent a guarantee of the properties of the product.
